

October 14, 2009

Ms. Sybil Kolon
Michigan Department of Environmental Quality
Environmental Response Division
Jackson District Office Building
301 E. Louis Glick Highway
Jackson, Michigan 49210

Re: **Quarterly Progress Report**
3rd Quarter, 2009
July 1, 2009 to September 30, 2009

Dear Ms. Kolon:

Please find enclosed the Quarterly Progress Report for the period of July 1, 2009 to September 30, 2009.

Should you have any questions regarding this document, please contact me at 734-913-6130.

Sincerely,



Farsad Fotouhi
Vice President
Corporate Environmental Engineering

cc: Ms. Celeste R. Gill, MDAG
Michael Caldwell, Esq.

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MDAG HRD
JACKSON DISTRICT OFFICE



3rd Quarter, 2009

(July, August, September)

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Unit E Potentiometric Surface Contour Map September 24, 2009

Summary of Activity

CEB = Central Environmental Building
C3 = C3 aquifer
D2 = D2 aquifer
E = E aquifer
SW = Southwest Property Area
Maple = Maple Road

Treatment Activities

07/01/09-07/22/09 - Due to electrical problems caused by DTE Energy, PLS was experiencing communication issues with various wells. This was repaired on 7/17/09 by DTE Energy.

07/05/09 - Evergreen (D2) extraction was shut down briefly due to a DTE Energy power failure.

07/23/09-07/24/09 - Extraction was periodically shut down to perform piping changes in the Green Pump House.

08/10/09 - TW-5 (D2) was shut down for maintenance.

08/21/09 - 08/25/09 - TW-20 (C3), TW-17 (E), and System 1-B were shut down to adjust the Pond level while Evergreen extraction was shut down.

08/21/09-08/26/09 - Evergreen (D2) extraction was shut down for maintenance.

08/27/09 - LB-3 (D2) was shut down for maintenance.

08/27/09 - 08/28/09 - HZ-S (D2) was shut down due to a storm in the area.

09/09/09-9/11/09 - TW-11 (E) was shut down for maintenance.

09/14/09 - 09/18/09 – Maple Treatment was shut down for rehabilitation of injection wells

09/23/09 - System 2A was shut down briefly for maintenance.

09/24/09 – 09/25/09 – Maple Treatment was shut down for maintenance.

Field Activities

07/23/09 – 07/24/09 – A portion of the discharge pipeline installed through the former Green Pond was modified.

09/24/09 – A test boring was completed near MW-94

Submittals/Responses

07/14/09 PLS submitted Discharge Monitoring Report (DMR) electronically to DEQ

07/14/09 PLS submitted Maple Interim Response Operation Report to DEQ
PLS submitted Monthly Monitoring Report (NPDES) to DEQ

07/14/09 PLS submitted 2nd Quarter 2009 Report to MDEQ

07/20/09 DEQ correspondence to PLS re: Inspection of June 16, 2009

08/05/09 PLS submitted annual Chronic Toxicity report to MDEQ

08/13/09 PLS submitted Maple Interim Response Operation Report to DEQ
PLS submitted Monthly Monitoring Report (NPDES) to DEQ

08/14/09 PLS submitted Discharge Monitoring Report (DMR) electronically to DEQ

09/17/09 PLS submitted Discharge Monitoring Report (DMR) electronically to DEQ
PLS submitted Maple Interim Response Operation Report to DEQ
PLS submitted Monthly Monitoring Report (NPDES) to DEQ

Anticipated Major Activities for the Next Quarter

- Evaluate feasibility of installing an additional extraction well along Wagner Road near MW-94
- Working with MDEQ and the Court to implement a new global remediation program
- Rehabilitation of TW-6

Quarterly Performance Analysis

For the months of July, August, and September 2009, over 712 pounds of 1,4-dioxane were removed and over 140,200,000 gallons of water were extracted from the contaminated aquifers, treated and discharged. The total mass of 1,4-dioxane removed since May 1997 is 81,079 pounds and the total volume of water discharged since May 1997 is over 5.2 billion gallons.

In general, the performance of the operation was as expected, purging and treating contaminated groundwater to the existing allowable capacities.

Mass Reduction

MASS REDUCTION DETAIL BY AQUIFIER

July 1 - July 31, 2009

Extraction Well	Month To Date Gallons Extracted	Month To Date Average Daily Flow Rate GPM	Month To Date Average Daily Pounds Removed	Month To Date Pounds Removed	Month To Date Average Concentration ppb
C3					
TW-1	-	0	0.0	0.0	182
TW-2 (Dolph)	2,217,395	50	0.1	1.7	90
TW-3	-	0	0.0	0.0	66
TW-6	-	0	0.0	0.0	97
TW-10	2,796,365	63	0.7	21.8	923
TW-14	2,568,583	58	0.1	2.1	101
TW-20	1,823,539	41	1.0	31.1	2044
MW-22	-	0.0	0.0	0.0	2620
<i>Sub-Totals</i>	<i>9,405,882</i>	<i>211</i>	<i>2</i>	<i>57</i>	
Marshy					
PW-1	159,278	4	0.0	1.2	928
<i>Sub-Totals</i>	<i>159,278</i>	<i>4</i>	<i>0</i>	<i>1</i>	
E					
TW-11	-	0	0.0	0.0	263
TW-12	-	0	0.0	0.0	23
TW-17	2,648,772	59	0.1	2.8	125
TW-18	11,333,124	254	1.2	35.7	377
MW-64	-	0	0.0	0.0	71
<i>Sub-Totals</i>	<i>13,981,896</i>	<i>313</i>	<i>1</i>	<i>38</i>	
Southwest					
Active Wells*	1,124,166	25	0.2	4.9	524
MW-10d	-	0.0	0.0	0.0	1083
MW-75	-	0	0.0	0.0	257
MW-45d	-	0.0	0.0	0.0	335
<i>Sub-Totals</i>	<i>1,124,166</i>	<i>25</i>	<i>0</i>	<i>5</i>	
D2					
LB-1	4,228,712	95	0.6	18.7	531
LB-3	4,007,887	90	0.6	18.0	539
AE-3	666,613	15	0.0	0.6	112
HW-S	1,036,063	23	0.3	8.0	935
TW-5	3,132,770	70	0.8	24.9	957
TW-9	2,736,749	61	0.8	24.9	1113
MW-11d	-	0	0.0	0.0	290
<i>Sub-Totals</i>	<i>15,808,794</i>	<i>354</i>	<i>3</i>	<i>95</i>	
Overall Totals	40,480,016	907	6.3	196.5	

*SW Active = TW-8, TW-13

MASS REDUCTION DETAIL BY AQUIFER

September 1 - September 30, 2008

Extraction Well	Month To Date Gallons Extracted	Month To Date Average Daily Flow Rate GPM	Month To Date Average Daily Pounds Removed	Month To Date Pounds Removed	Month To Date Average Concentration ppb
C3					
TW-1	1,753,085	41	0.1	2.6	177
TW-2 (Dolph)	2,425,809	56	0.1	1.9	93
TW-3	-	0	0.0	0.0	66
TW-6	-	0	0.0	0.0	97
TW-10	3,894,627	90	1.0	29.1	897
TW-14	2,321,765	54	0.1	2.3	116
TW-20	3,398,398	79	2.0	60.1	2120
MW-22	-	0.0	0.0	0.0	2620
<i>Sub-Totals</i>	13,793,684	319	3	96	
Marshy					
PW-1	218,316	5	0.1	1.6	857
<i>Sub-Totals</i>	218,316	5	0	2	
E					
TW-11	1,560,345	36	0.2	4.7	364
TW-12	-	0	0.0	0.0	23
TW-17	2,389,692	55	0.1	2.3	113
TW-18	9,869,898	228	1.0	29.4	357
MW-64	-	0	0.0	0.0	71
<i>Sub-Totals</i>	13,819,935	320	1	36	
Southwest					
Active Wells	1,419,741	33	0.2	6.3	534
MW-10d	-	0.0	0.0	0.0	1083
MW-75	-	0	0.0	0.0	257
MW-45d	-	0.0	0.0	0.0	335
<i>Sub-Totals</i>	1,419,741	33	0	6	
D2					
LB-1	4,105,280	95	0.6	18.5	540
LB-3	3,890,116	90	0.6	17.5	539
AE-3	649,776	15	0.0	0.6	119
HW-S	1,035,097	24	0.3	8.5	981
TW-5	4,873,776	113	1.4	41.7	1026
TW-9	4,198,646	97	1.3	40.2	1146
MW-11d	-	0	0.0	0.0	290
<i>Sub-Totals</i>	18,752,691	434	4	127	
Overall Totals	48,004,367	1,111	8.9	267.3	

*SW Active = TW-8, TW-13

MASS REDUCTION SUMMARY
Mass Removed Per Month (lb)

A	B	C	D	E	F
Month	Mass Removed from Unit E Only	Mass Removed from Southwest Only	Mass Removed from Marshy Only	Mass Removed from Units C3 and D2 Only	Total Mass Removed from Units E, D2, C3, Southwest and Marshy
Aug-00	0	0	8	366	374
Sep-00	0	0	9	332	341
Oct-00	0	5	9	583	597
Nov-00	0	3	12	1160	1175
Dec-00	0	0	10	1040	1050
Jan-01	0	0	7	816	823
Feb-01	0	0	7	1056	1063
Mar-01	0	0	11	1379	1390
Apr-01	0	0	9	1140	1149
May-01	0	1	8	990	999
Jun-01	0	2	8	933	943
Jul-01	0	2	10	1121	1133
Aug-01	0	2	13	1018	1033
Sep-01	0	1	9	909	919
Oct-01	0	5	8	896	909
Nov-01	0	4	5	827	836
Dec-01	0	6	4	768	778
Jan-02	0	6	5	753	764
Feb-02	0	4	6	691	701
Mar-02	0	7	7	663	677
Apr-02	0	6	7	682	695
May-02	100	9	7	898	1014
Jun-02	94	9	6	889	998
Jul-02	56	10	7	640	713
Aug-02	53	8	6	745	812
Sep-02	51	8	6	860	925
Oct-02	33	6	4	603	646
Nov-02	57	8	5	880	950
Dec-02	48	9	5	842	904
Jan-03	45	8	6	839	898
Feb-03	37	6	6	767	816
Mar-03	44	8	7	763	822
Apr-03	39	8	3	716	766
May-03	36	13	5	725	779
Jun-03	34	15	5	683	737
Jul-03	29	15	5	678	727
Aug-03	31	15	6	676	728
Sep-03	27	16	5	644	692
Oct-03	34	17	5	701	757
Nov-03	26	12	5	663	706
Dec-03	29	14	6	635	684
Jan-04	28	15	6	667	716
Feb-04	8	11	5	485	509
Mar-04	23	14	7	573	617
Apr-04	27	15	6	537	585
May-04	16	10	5	439	470
Jun-04	21	11	5	499	536
Jul-04	36	12	5	506	559

MASS REDUCTION SUMMARY
Mass Removed Per Month (lb)

A	B	C	D	E	F
Month	Mass Removed from Unit E Only	Mass Removed from Southwest Only	Mass Removed from Marshy Only	Mass Removed from Units C3 and D2 Only	Total Mass Removed from Units E, D2, C3, Southwest and Marshy
Aug-08	50	7	2	198	256
Sep-08	43	5	2	177	227
Oct-08	45	5	2	187	239
Nov-08	45	7	2	197	251
Dec-08	45	5	2	187	239
Jan-09	39	8	2	124	173
Feb-09	34	8	2	122	164
Mar-09	35	8	2	122	166
Apr-09	32	6	1	119	158
May-09	45	7	2	201	254
Jun-09	39	5	1	157	202
Jul-09	38	5	1	152	196
Aug-09	39	7	2	202	250
Sep-09	36	6	2	223	267
Total to date	4729	814	477	53602	59622

Maps